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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID JOHN BENJAMIN PEARCE
and JON ALSTAIR GIBBS

Appeal 2008-005318
Application 09/830,306
Technology Center 2600

Before KENNETH W. HAIRSTON, CARLA M. KRIVAK, and
KARL D. EASTHOM, *Administrative Patent Judges*.
HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1, 3, 4, 6, 7, 11 to 13, 15, 16, 18, 19, and 23 to 26. In a prior Decision dated May 7, 2009, the Board sustained the obviousness rejections based upon the Background of the Invention teachings in the reference to Jeon (U.S. Patent 5,673,363). After submission of a Request for Rehearing, the Board granted the request by withdrawing the obviousness rejections of claims 1, 11 to 13, and 23 to 26, but maintained the obviousness rejections of claims 3, 4, 6, 7, 15, 16, 18, and 19. By Order of the Court of Appeals for the Federal Circuit dated March 24, 2010, the Decision by the Board dated May 7, 2009, has been vacated and the case has been remanded to the Board to address all of the claims listed in the Request for Rehearing. We have jurisdiction under 35 U.S.C. § 6(b).

We will reverse the obviousness rejections.

Appellants' invention is concerned with mitigating transmission errors in a distributed speech recognition method and system by replacing one or more speech recognition parameters in an identified group of vectors that have a transmission error with corresponding copies of one or more corresponding speech recognition parameters from a different vector (Figs. 1 and 2; Spec. 9 to 11).

Claim 1 is representative of the claims on appeal, and it reads as follows:

1. A method of mitigating errors in a distributed speech recognition process, the distributed speech recognition process being one in which speech recognition parameters are arranged in vectors, each vector corresponding to a particular sampling time-frame, and said speech recognition parameters are received at a second location having been transmitted from a first location;

the method comprising the steps of:
identifying a group comprising one or more of said vectors which have undergone a transmission error; and
replacing one or more speech recognition parameters in the identified group of vectors, wherein said one or more speech recognition parameters in said identified group of vectors are replaced by respective replacement parameters corresponding to copies of one or more corresponding speech recognition parameters from a different vector, corresponding to a different particular sampling time frame, received without error after said identified group of vectors.

The Examiner rejected claims 1, 3, 13, 15, 25, and 26 under 35 U.S.C. § 103(a) based upon the teachings of Jacobs (U.S. Patent 5,956,683) and Jeon.

The Examiner rejected claims 4 and 16 under 35 U.S.C. § 103(a) based upon the teachings of Jacobs, Jeon, and Ozawa (U.S. Patent 5,305,332).

The Examiner rejected claims 6, 7, 11, 12, 18, 19, 23, and 24 under 35 U.S.C. § 103(a) based upon the teachings of Jacobs, Jeon, and Yeldener (U.S. Patent 5,774,837).

Appellants and the Examiner agree that Jacobs does not provide any type of transmission error correction (Br. 6; Ans. 4). Appellants argue *inter alia* (Br. 6 to 8) that the applied references do not teach replacing one or more speech recognition parameters or the entire vector that has undergone a transmission error with copies of one or more corresponding speech recognition parameters.

ISSUE

Did the Examiner err by finding that the applied reference to Jeon teaches replacing one or more speech recognition parameters or the entire

vector that has undergone a transmission error with copies of one or more corresponding speech recognition parameters?

FINDINGS OF FACT

1. The transmission error mitigation performed by Appellants replaces speech recognition parameters in a vector (e.g., vector 133) with corresponding speech recognition parameters from a different vector (e.g., vector 134).

2. Jacobs describes a distributed speech recognition process in which speech recognition parameters are arranged in vectors, and each vector corresponds to a particular sampling time frame (Fig. 2; Abstract; col. 1, ll. 22 to 29). The speech signals are transmitted from a first location to a second location (col. 9, ll. 7 to 20).

3. In the preferred embodiment of Jeon, an error in a segment of a frame is concealed by taking an adjacent segment from another frame and multiplying the adjacent segment by a weight value to obtain a coefficient for the erroneous segment (Fig. 6A; col. 4, l. 62 to col. 5, l. 18).

4. In the admitted prior art of Jeon, a frame with erroneous segment(s) is replaced *in toto* with the contents of a buffered error-free frame (Figs. 3 and 4A; col. 1, ll. 5 to 12; col. 1, l. 59 to col. 2, l. 31).

PRINCIPLE OF LAW

The Examiner's articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

ANALYSIS

Inasmuch as the preferred embodiment in Jeon (FF 3) conceals an error in a segment of a frame by taking an adjacent segment from another frame and multiplying the adjacent segment by a weight value to obtain a coefficient for the erroneous segment, we agree with Appellants' argument that such an error concealment technique does not teach replacing one or more speech recognition parameters, or the entire vector that has undergone a transmission error, with *copies* of one or more *corresponding* speech recognition parameters. As seen in Figure 6A of the preferred embodiment in Jeon (FF 3), the adjacent segment S_m from frame F_1 is not a *corresponding copy* of erroneous segment S_1 from frame F_2 .

Although the admitted prior art in Figures 3 and 4A of Jeon (FF 4) describes the replacement *in toto* of a frame F_2 with erroneous segment(s) with another frame from buffer 40, neither Jeon nor the Examiner has explained the applicability of this teaching to frames of speech recognition parameters in a speech recognition process.

In summary, the obviousness rejection of claims 1, 3, 13, 15, 25, and 26 is reversed because the Examiner's articulated reasoning (Ans. 5, 8 to 12) does not support the legal conclusion of obviousness. As indicated *supra*, Jeon does not replace a frame of speech recognition parameters with another frame of speech recognition parameters. *See Kahn*, 441 F.3d at 988.

The obviousness rejections of claims 4, 6, 7, 11, 12, 16, 18, 19, 23, and 24 are reversed because the teachings of Ozawa and Yeldener fail to cure the noted shortcomings in the teachings of Jacobs and Jeon.

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CONCLUSION OF LAW

The Examiner erred by finding that the applied references teach replacing one or more speech recognition parameters or the entire vector that has undergone a transmission error with copies of one or more corresponding speech recognition parameters.

ORDER

The Examiner's obviousness rejections of claims 1, 3, 4, 6, 7, 11 to 13, 15, 16, 18, 19, and 23 to 26 are reversed.

REVERSED

KIS

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